

Amendment to the Claims:

1. (Cancelled)
2. (Previously Presented) The system of claim 5, wherein the facts derived from the demultiplexed content comprise a name of at least one person who participated in creation of a relevant piece of content.
3. (Previously Presented) The system of claim 5, wherein the facts derived from content comprise a summary of a relevant piece of content.
4. (Cancelled)
5. (Previously Presented) A data processing system comprising:
a demultiplexer which demultiplexes at least visual, audio, and multimedia content into data components;
one or more content analyzer routines which analyze the demultiplexed
5 data components to derive at least facts from the relevant user experience and behavior;
a store computer routine which stores at least the derived facts, user experience and behavior, other facts and information, and user inputs responsive to user queries into an adaptive memory with a hierarchy of linked index nodes, each
10 node corresponding to a subcategory of information; and
a reasoning and fact reconciling computer routine which uses modal logic to control the adaptive memory to create at least one link to a content node and weak links to other index nodes, which weak links do not fit into the hierarchy.
6. (Currently Amended) The system of claim 5, wherein the facts derived from user behaviors include at least one record of play sequence commands, the play sequence commands including one or more of fast-forward, pause, replay, jump, select, and rewind commands.

7. (Previously Presented) The system of claim 5, wherein the facts derived from user behaviors include at least one record of presence or absence of the user.

8. (Previously Presented) The system of claim 5, wherein the facts derived from user behaviors include at least one record of queries.

9. (Previously Presented) The system of claim 5, wherein the adaptive memory includes at least one snapshot, which snapshot acts as a bias toward a longer term view of user behavior.

10. (Currently Amended) A data processing system comprising:
a memory with a hierarchy of linked index and content nodes;
at least one processor which perform operations to make the memory
into a personal adaptive memory, the processor being programmed with code to
5 perform operations including the following:

capturing content experienced by a relevant user and the
relevant user's behaviors;

analyzing the content and behaviors to create updated
content and behavior data;

10 updating the adaptive personal memory with the
updated data;

at regular intervals, taking snapshots indicative of user
interests; and

15 analyzing the snapshots for adaptive memory tracking
and evolution of the user;

wherein at least one of the analyzing and updating steps
makes use of modal, non-monotonic logic; and

20 wherein analyzing the snapshots includes determining a
level of interest in particular content, responsive to play sequence
commands including one or more of fast-forward, pause, replay, jump,
select, and rewind commands.

11. (Previously Presented) The system of claim 10, wherein the operations further comprise interfacing with the user and acquiring more data from the user.

12. (Previously Presented) The system of claim 11, wherein interfacing further comprises one or more of

retrieving segments of interest from an external source based on the adaptive personal memory;

5 augmenting video programs based on the adaptive personal memory;

recommending new content based on the adaptive personal memory;

and

creating a personal television channel based on the adaptive personal memory.

13. (Previously Presented) The system of claim 10, wherein analyzing the snapshots includes determining a level of interest in particular content, responsive to one or more of:

whether or not the content was viewed in detail; and

5 what queries were made.

14-16. (Cancelled)

17. (Currently Amended) A data processing system comprising an adaptive memory with a hierarchy of linked nodes and weak links outside of the hierarchy;

5 at least one processor which maintains the adaptive memory in accordance with ongoing user behaviors and content experience by implementing code for performing operations including:

forming at least one query, responsive to the adaptive memory, for one or more of:

gathering additional content,

10 recommending content,
augmenting content, and
creating a personal television channel;
capturing content experienced by the user and the user's
relevant behavior;
15 analyzing the experienced content, the user behavior,
and responses to the at least one query to create updated data;
updating the adaptive memory with the updated data,
the updating and analyzing using modal, non-monotonic logic;
wherein the user behavior includes a record of play
20 sequence commands that are each assigned an interest level value; and
calculating a user's interest in a particular content
segment as a function of the interest level values of play sequence
commands in the record, the play sequence commands including one
or more of fast-forward, pause, replay, jump, select, and rewind
25 commands.

18. (Original) The system of claim 17, wherein the query
comprises seeking out new content having a participant in common with previously
experienced content.

19. (Original) The system of claim 17, wherein the query
comprises seeking out new content having summary information in common with
previously experienced content.

20. (Original) The system of claim 17, wherein the forming
comprises using snapshots as a bias toward a longer term view of user behavior.

21-23. (Cancelled)

24. (Currently Amended) The method of claim 29, wherein facts
derived from the relevant user's behavior include a record of one or more of:

presence or absence of the user; and
queries play sequence commands including one or more of fast-forward, pause, replay, jump, select, and rewind commands.

25. (Previously Presented) The method of claim 29, wherein the adaptive personal memory comprises at least some current data and at least some snapshot data, which snapshot data acts as a bias toward a longer term view of user behavior.

26-28. (Cancelled)

29. (Previously Presented) A data processing method comprising, with a computer program, executing at least the following operations in a data processing device:

- maintaining at least one adaptive personal memory including:
 - personal information,
 - facts derived from content experienced by at least one relevant user, and
 - facts derived from the relevant user's behavior;
- capturing content and summaries experienced by the relevant user and the relevant user's behaviors;
- analyzing the content and behaviors to create updated personal data;
- updating the adaptive memory with the updated personal data;
- interfacing with the relevant user responsive to the adaptive personal memory and to acquire more data from the relevant user;
- wherein at least one of the maintaining, analyzing, and updating steps makes use of non-monotonic logic and wherein the non-monotonic logic is modal logic;
- wherein the facts derived from the relevant user's behavior include a record of play sequence commands that are each assigned an interest level value; and

calculating a user's interest in a particular content segment as a function of the interest level values of play sequence commands in the record.

30. (Previously Presented) The method of claim 29, wherein the operations further comprise forming at least one query, responsive to the adaptive memory, for one or more of: gathering additional content; recommending content; augmenting content, and creating a personal television channel.

31-32. (Cancelled)

33. (Previously Presented) The method of claim 30, wherein the forming comprises using snapshots as a bias toward a longer term view of user behavior.

34. (Previously Presented) A memory encoded with computer-executable instructions that when executed by a data processing device cause the data processing device to perform operations to maintain at least one adaptive personal memory with information including personal information, facts derived from content experienced by at least one relevant user, and facts derived from the relevant user's behavior, the computer-executable instructions including:

- code for capturing content experienced by a relevant user;
- code for capturing the relevant user's behavior;
- code for updating the adaptive personal memory;
- code which periodically creates a snapshot depicting the captured relevant user's experienced content and behavior over a preceding period;
- code for analyzing a plurality of the snapshots to develop patterns, trends, and tendencies in the relevant user's behavior; and
- code for pushing content to the relevant user in accordance with the patterns, trends, and tendencies developed from the snapshots;

wherein at least one of the analyzing and updating codes makes use of modal non-monotonic logic;

wherein the captured relevant user's behavior includes a record
of play sequence commands that are each assigned an interest level value; and
20 code for calculating a user's interest in a particular content segment as
a function of the interest level values of play sequence commands in the record.

35. (Currently Amended) The memory of claim 34, wherein the
captured relevant user's behavior includes a record of one or more of:
 presence or absence of the user; and
 queries play sequence commands including one or more of fast-
5 forward, pause, replay, jump, select, and rewind commands.

36. (Previously Presented) The memory of claim 34, wherein the
adaptive personal memory comprises at least some current data and at least some
snapshot data, which snapshot data acts as a bias toward a longer term view of the
relevant user's behavior.

37. (Previously Presented) The memory of claim 34 further
including:
 code for capturing content summaries of the content experienced by
the relevant user ; and
5 code for analyzing the captured content and content summaries and
behaviors to create updated personal data, the updating code updating the adaptive
memory with the updated personal data.

38. (Previously Presented) The memory of claim 34, further
including:
 code for interfacing with the relevant user responsive to the adaptive
personal memory and to acquire more data from the relevant user.

39-40. (Cancelled)

41. (Previously Presented) The memory of claim 34, further including:

code for forming at least one query, responsive to the adaptive memory; and

5 code for one or more of: gathering additional content; recommending content; augmenting content, and creating a personal television channel.

42. (Previously Presented) The memory of claim 41, wherein the forming code uses non-monotonic logic.

43. (Previously Presented) The memory of claim 41, wherein the non-monotonic logic includes modal logic.

44. (Previously Presented) The memory of claim 42, wherein the forming code interacts with the snapshot code to create a longer term view of the relevant user's behavior.

45. (New) The system of claim 5, wherein the record of play sequence commands includes fast-forward and rewind commands that indicate a level of user interest in content upon which the commands were executed.

46. (New) The system of claim 5, wherein the record of play sequence commands includes replay and jump commands that indicate a level of user interest in content upon which the commands were executed.

47. (New) The system of claim 10, wherein the record of play sequence commands includes fast-forward and rewind commands that indicate a level of user interest in content upon which the commands were executed.

48. (New) The system of claim 10, wherein the record of play sequence commands includes replay and jump commands that indicate a level of user interest in content upon which the commands were executed.

49. (New) The system of claim 17, wherein the record of play sequence commands includes fast-forward and rewind commands that indicate a level of user interest in content upon which the commands were executed.

50. (New) The system of claim 17, wherein the record of play sequence commands includes replay and jump commands that indicate a level of user interest in content upon which the commands were executed.

51. (New) The method of claim 29, wherein the record of play sequence commands includes fast-forward and rewind commands that indicate a level of user interest in content upon which the commands were executed.

52. (New) The method of claim 29, wherein the record of play sequence commands includes replay and jump commands that indicate a level of user interest in content upon which the commands were executed.

53. (New) The memory of claim 34, wherein the record of play sequence commands includes fast-forward and rewind commands that indicate a level of user interest in content upon which the commands were executed.

54. (New) The memory of claim 34, wherein the record of play sequence commands includes replay and jump commands that indicate a level of user interest in content upon which the commands were executed.